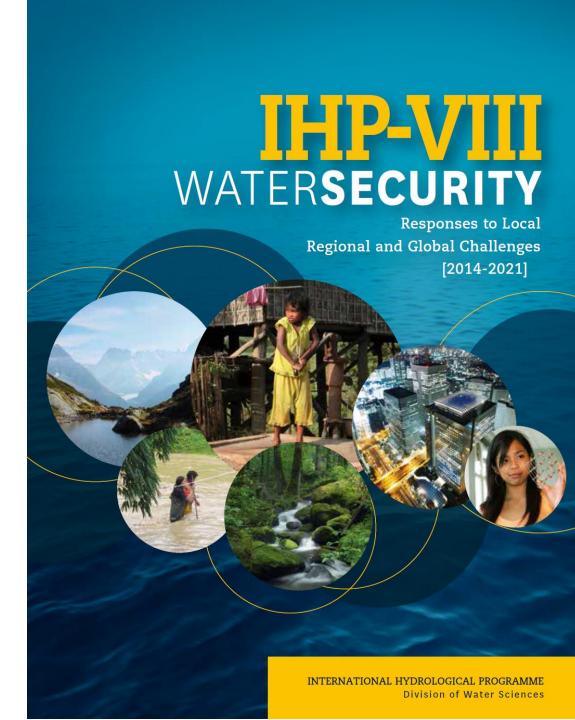
The eighth phase of the International Hydrological Programme (IHP-VIII) focuses on six thematic areas to assist Member States in their challenging endeavor to better manage and secure water and to ensure the necessary human and institutional capacities





IHP-VIII AT A GLANCE

THEMES AND FOCAL AREAS

THEME 1: WATER RELATED DISASTERS AND HYDROLOGICAL CHANGES

Focal Area 1.1 - Risk management as adaptation to global changes

Focal Area 1.2 - Understanding coupled human and natural processes

Focal Area 1.3 - Benefiting from global and local Earth observation systems

Focal Area 1.4 - Addressing uncertainty and improving its communication

Focal Area 1.5 - Improve scientific basis for hydrology and water sciences for preparation and response to extreme hydrological events

THEME 2: GROUNDWATER IN A CHANGING ENVIRONMENT

Focal Area 2.1 - Enhancing sustainable groundwater resources management Focal Area 2.2 - Addressing strategies for management of aquifers recharge Focal Area 2.3 - Adapting to the impacts of climate change on aquifer systems Focal Area 2.4 - Promoting groundwater quality protection

Focal Area 2.5 - Promoting management of transboundary aquifers

THEME 3: ADDRESSING WATER SCARCITY AND QUALITY

Focal Area 3.1 - Improving governance, planning, management, allocation, and efficient use of water resources

Focal Area 3.2 - Dealing with present water scarcity and developing foresight to prevent undesirable trends

Focal Area 3.3 - Promoting tools for stakeholders involvement and awareness and conflict resolution Focal Area 3.4 - Addressing water quality and pollution issues within an IWRM framework improving legal, policy, institutional, and human

Focal Area 3.5 - Promoting innovative tools for safety of water supplies and controlling pollution

THEME 4: WATER AND HUMAN SETTLEMENTS OF THE FUTURE

Focal Area 4.1 - Game changing approaches and technologies

Focal Area 4.2 - System wide changes for integrated management approaches

AXIS 3

Developing

institutional

and human

capacities

for water

security and

sustainability

Focal Area 4.3 - Institution and leadership for beneficiation and integration

Focal Area 4.4 - Opportunities in emerging cities in developing countries

Focal Area 4.5 - Integrated development in rural human settlement

THEME 5: ECOHYDROLOGY. ENGINEERING HARMONY FOR A

Focal Area 5.1 - Hydrological dimension of a catchment - identification of potential threats and opportunities for a sustainable development Focal Area 5.2 - Shaping of the catchment ecological structure for ecosystem potential enhancement - biological productivity and biodiversity.

Focal Area 5.3 - Ecohydrology system solution and ecological engineering for the enhancement of water and ecosystem resilience and ecosystem services

Focal Area 5.4 - Urban Ecohydrology - storm water purification and retention in the city landscape, potential for improvement of health and quality of life

Focal Area 5.5 - Ecohydrological regulation for sustaining and restoring continental to coastal connectivity and ecosystem functioning

THEME 6: WATER EDUCATION KEY, FOR WATER SECURITY

Focal Area 6.1 - Enhancing tertiary water education and professional capabilities in the water sector

Focal Area 6.2 - Addressing vocational education and training of water technicians

Focal Area 6.3 - Water education for children and

Focal Area 6.4 - Promoting awareness of water issues through informal water education

Focal Area 6.5 - Education for transboundary water cooperation and governance

EDUCATION, TRAINING AND CAPACITY BUILDING ACTIVITIES ARE DEVELOPED ACROSS ALL THEMES

AXIS 1

Mobilizing International cooperation to Improve knowledge and innovation to adress water security challenges

WATER-RELATED **DISASTERS AND** GROUNDWATER IN A CHANGNG **HYDROLOGICAL CHANGE** ENVIRONMINT

ADRESSING WATER SCARCITY AND WATER **OUALITY**

WATER AND HUMAN SETTLEMENTS OF THE FUTURE

HARMONY FOR



EDUCATION. KEY TO WATER



AXIS 2

Strengthening the Science-Policy interface to reach water security at local, national, regional, and global levels



Theme 1: Water-related Disasters and Hydrological Changes

- Focal Area 1.1: Risk management as adaptation to global changes.
- Focal Area 1.2: Understanding coupled human and natural processes.
- Focal Area 1.3: Benefiting from global and local Earth observation systems.
- Focal Area 1.4: Addressing uncertainty and improving its communication.
- Focal Area 1.5 Improve scientific basis for hydrology and water sciences for preparation and response to extreme hydrological events.



Theme 2: Groundwater in a Changing Environment

- Focal area 2.1 Enhancing sustainable groundwater resources management
- Focal area 2.2 Addressing strategies for management of aquifers recharge
- Focal area 2.3 Adapting to the impacts of climate change on aquifer systems
- Focal area 2.4 Promoting groundwater quality protection
- Focal area 2.5 Promoting management of transboundary aquifers



Theme 3: Addressing Water Scarcity and Quality

- Focal area 3.1 Improving governance, planning, management, allocation, and efficient use of water resources
- Focal area 3.2 Dealing with present water scarcity and developing foresight to prevent undesirable trends
- Focal area 3.3 Promoting tools for stakeholders involvement and awareness and conflict resolution
- Focal area 3.4 Addressing water quality and pollution issues within an IWRM framework - improving legal, policy, institutional, and human capacity
- Focal area 3.5 Promoting innovative tools for safety of water supplies and controlling pollution





Theme 4: Water and Human Settlements of the Future

- Focal area 4.1 Game changing approaches and technologies
- Focal area 4.2 System wide changes for integrated management approaches
- Focal area 4.3 Institution and leadership for beneficiation and integration
- Focal area 4.4 Opportunities in emerging cities in developing countries
- Focal area 4.5 Integrated development in rural human settlement



Theme 5: Ecohydrology, Engineering Harmony for a Sustainable World

- Focal area 5.1 Hydrological dimension of catchment
 – identification of potential threats and opportunities for a sustainable development
- Focal area 5.2 Shaping of the catchment ecological structure for ecosystem potential enhancement – biological productivity and biodiversity
- Focal area 5.3 Ecohydrology system solution and ecological engineering for the enhancement of water and ecosystem resilience and ecosystem services
- Focal area 5.4 Urban Ecohydrology storm water purification and retention in the city landscape, potential for improvement of health and quality of life
- Focal area 5.5 Ecohydrological regulation for sustaining and restoring continental to coastal connectivity and ecosystem functioning



Theme 6: Water Education, Key to Water Security

- Focal Area 6.1 Enhancing tertiary water education and professional capabilities in the water sector
- Focal Area 6.2 Addressing vocational education and training of water technicians
- Focal Area 6.3 Water education for children and youth
- Focal Area 6.4 Promoting awareness of water issues through informal water education
- Focal Area 6.5 Education for transboundary water cooperation and governance

